

Unit 3 test review—SM3H

1. 0, 4, 18, 48, 100
2. -5, -20, -80, -320, -1280, -5120
3. $a_n = 9n - 27$
4. $a_n = 8(4)^{n-1}$
5. $a_1 = 4, a_n = a_{n-1} + 1$
6. $a_n = 4.7n + 700$
7. $\sum_{k=1}^{\infty} 4(-4)^{k-1}$
8. $d = 5$
9. 238
10. $r = -\frac{1}{3}$
11. 410
12. 594
13. diverges because common ratio is greater than 1
14. converges, 72
15. 1170
16. $x^5 - 5x^4y + 10x^3y^2 - 10x^2y^3 + 5xy^4 - y^5$
17. 55
18. 1
19. 364
20. $624x^4 - 200x^3 + 2400x^2 - 1280x + 256$